



NASA ASTROBIOLOGY INSTITUTE
ANNUAL REPORT YEAR 6
[July 2003 - June 2004]

Annual Reports :: Year 6 :: University of Hawaii, Manoa

Project Report: Autonomous Sensor Networks for Hydrology Research

Anderson, F.S. (2004). Ruggedized nanospray RF & RTOF mass spectroscopy for environmental characterization & biomolecule detection [Abstract]. Bioastronomy 2004: Habitable Worlds, Reykjavik, Iceland. *Astrobiology*, 4(2): 235.

Fryer, P., Becker, N.C., Wheat, C.G., Hulme, S., Fryer, G.J., Gharib, J.& Mottl, M.J. (2003). Complexities of eruptive processes at Mariana forearc serpentinite mud volcanoes and implications for serpentinite m_lange development [Abstract]. *Eos, Transactions of the American Geophysical Union*, 84: F1397.

Gharib, J., Fryer, P., Ross, K. & Mottl, M. (2003). Variability in mineralogy of Mariana serpentinite mud volcanoes: source compositions and relationships to fluid release from the subducted slab [Abstract]. *Eos, Transactions of the american Geophysical Union*, 84: F1396–1397.

Hulme, S.M., Wheat, C.G., Mottl, M.J. & Fryer, P. (2003). Mapping the Mariana seismogenic zone through the measurement of geochemical tracers in serpentinite seamounts [Abstract]. *Eos, Transactions of the American Geophysical Union*, 84: F1396.

Mottl, M.J., Komor, S.C., Fryer, P. & Moyer, C.L. (2004). Serpentization, abiogenic methane, and extremophilic Archaea within the seafloor [Abstract]. Bioastronomy 2004: Habitable Worlds, Reykjavik, Iceland. *Astrobiology*, 4(2): 279.

Mottl, M.J., Wheat, C.G., Fryer, P., Gharib, J. & Hulme, S. (2003). Chemistry of springs across the Mariana forearc shows progressive devolatilization of the subducting Pacific plate [Abstract]. *Eos, Transactions of the American Geophysical Union*, 84: F1396.